

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently Amended) A sealing structure for polymer electrolyte fuel cell having a membrane electrode assembly, the sealing structure comprising:

a bipolar plate including a sealing groove and an anchor groove coupled to a periphery of the sealing groove, the sealing groove surrounding at least one of a reaction site or a manifold formed on the bipolar plate, the anchor groove extending toward an outer edge of the bipolar plate, and a width of the anchor groove being greater than a width of the sealing groove;

a sealing member formed of rubber and positioned in the sealing groove and the anchor groove; and

a gasket plate interposed between the bipolar plate and the membrane electrode assembly, wherein the sealing member is formed by drying liquid rubber, the liquid rubber filling in the sealing groove by controlling a dispenser to start from the anchor groove and finish in the anchor groove by way of the sealing groove.

2. (Canceled)

3. (Previously Presented) The sealing structure as in claim 1, wherein the width of the anchor groove is 1.5 times greater than the width of the sealing groove.

4. (Previously Presented) The sealing structure as in claim 3, wherein a depth of the sealing groove is equal to a depth of the anchor groove.
5. (Previously Presented) The sealing structure as in claim 1, wherein the anchor groove is formed extending from the periphery of the sealing groove along a direction perpendicular to the periphery of the sealing groove.
6. (Previously Presented) The sealing structure as in claim 1, further comprising an opposed bipolar plate having an opposed anchor groove, wherein the bipolar plate and the opposed bipolar plate are disposed on opposite sides of the membrane electrode assembly.
7. (Previously Presented) The sealing structure as in claim 1, wherein the rubber comprises a rubber material containing at least one of silicon, fluorine, or olefin.
8. (Currently Amended) The sealing structure as in claim 1, wherein the gasket plate comprises the same material as the bipolar plate.
9. (Previously Presented) A polymer electrolyte fuel cell comprising said sealing structure stated in any of claims 1 and 3-8.

10. (Previously Presented) The sealing structure of claim 6, wherein the opposed anchor groove is formed on the opposed bipolar plate at a location symmetric with respect to the anchor groove of the bipolar plate.

11. (Withdrawn) A polymer electrolyte fuel cell comprising:

a plate comprising:

a sealing groove having a first portion and a second portion, the first portion surrounding at least one of a reaction site or a manifold formed on the plate, and the second portion extending from a periphery of the first portion toward an outer edge of the plate, the second portion having a width greater than a width of the first portion; and

a sealing member of soft elastic material formed in the sealing groove;
a membrane electrode assembly; and
a gasket interposed between the plate and the membrane electrode assembly.

12. (Withdrawn) A method for making a sealing plate for a polymer electrolyte fuel cell, comprising:

forming a sealing groove in the plate, the sealing groove:

having a first portion surrounding at least one of a reaction site or a manifold, and

having a second portion extending from a periphery of the first portion toward an outer edge of the sealing plate, the second portion having a width greater than a width of the first portion;

forming a sealing element of soft elastic sealing material into the sealing groove, comprising, sequentially:

dispersing the sealing material in liquid form into the second portion;

dispersing the sealing material in liquid form into the first portion; and

dispersing the sealing material in liquid form into the second portion, such

that the sealing material is partially projected from a surface of the plate; and

converting the liquid sealing material into a solid form.